NOTCH1 Monoclonal Antibody (mN1A), eBioscience™

Product Details	
Size	50 µg
Species Reactivity	Human, Mouse
Published Species	Mouse, Human
Host/Isotype	Mouse / IgG1, kappa
Class	Monoclonal
Type	Antibody
Clone	mN1A
Conjugate	Unconjugated
Form	Liquid
Concentration	0.5 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C
RRID	AB_467579

Applications	Tested Dilution	Publications
Western Blot (WB)	1:500	6 Publications
Immunohistochemistry (IHC)	Assay-Dependent	1 Publication
Flow Cytometry (Flow)	1 µg/test	3 Publications

Product Specific Information

Description: The Notch family of transmembrane receptors controls cell-fate decisions during the development of many organs in a wide variety of species. After binding its ligand, the Notch receptor is cleaved in its transmembrane domain, and the resulting intracellular domain dissociates from the membrane and translocates to the nucleus, where it is able to suppress the expression of lineage-specific genes by interacting with transcriptional repressors. The mN1A antibody reacts with the intracellular domain of mouse and human Notch1, but not with Notch2, 3, or 4. The mN1A antibody has a low affinity for the full-length (unprocessed or heterodimeric cell surface) forms of Notch1. In the mouse, Notch mRNA is expressed in mouse hematopoietic cells of the fetal liver and adult thymus and bone marrow. In the thymus, Notch1 protein is detected in CD4-CD8- (double-negative) and CD4-CD8+ (single-positive) thymocytes. Studies of Notch1-transgenic cells and Notch1-null mice indicate that the receptor is involved in the regulation of lymphopoiesis and myelopoiesis.

Applications Reported: This mN1A antibody has been reported for use in intracellular staining followed by flow cytometric analysis, immunoblotting (WB), and immunohistochemical staining. (Fluorochrome conjugated mN1A is recommended for use in intracellular flow cytometry.).

Applications Tested: This mN1A antibody has been tested by intracellular staining and flow cytometric analysis of mouse thymocytes. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

Purity: Greater than 90%, as determined by SDS-PAGE.

Aggregation: Less than 10%, as determined by HPLC.

Filtration: 0.2 µm post-manufacturing filtered.

Product Images For NOTCH1 Monoclonal Antibody (mN1A), eBioscience™

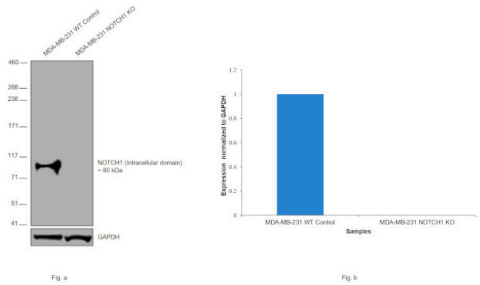
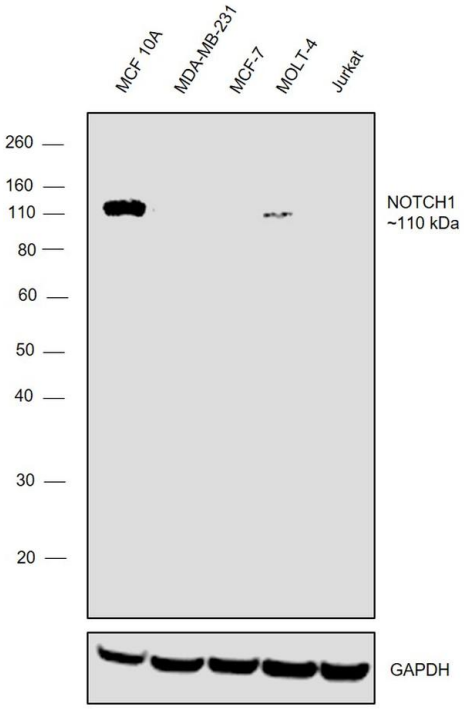
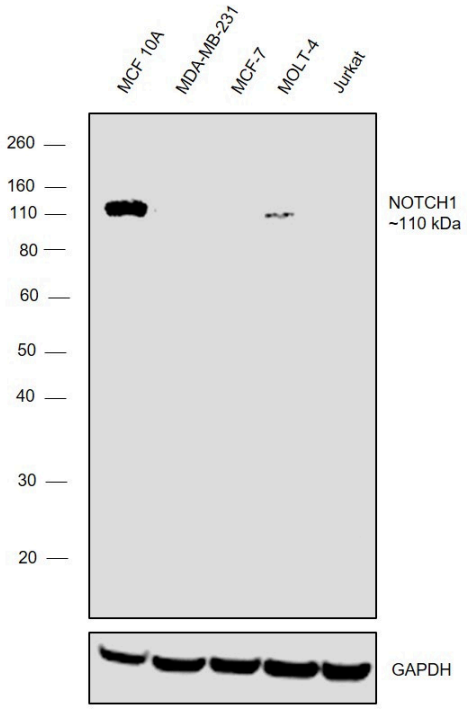


Fig. a Fig. b

NOTCH1 Antibody (14-5785-81)
Antibody specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. A loss of signal was observed for target protein in NOTCH1 KO cell line compared to control cell line using Anti-NOTCH1 Monoclonal Antibody (mN1A), eBioscience™ (Product # 14-5785-81). {KO}



NOTCH1 Antibody (14-5785-81) in WB
Western blot was performed using Anti-NOTCH1 Monoclonal Antibody (mN1A), eBioscience™ (Product # 14-5785-81) and a 110 kDa band corresponding to NOTCH1 was observed across in MCF 10A and MOLT-4 in comparison to MDA-MB-231, MCF-7 and Jurkat which are reported to be negative . Whole cell extracts (30 µg lysate) of MCF 10A (Lane 1), MDA-MB-231 (Lane 2), MCF-7 (Lane 3), MOLT-4 (Lane 4) and Jurkat (Lane 5) were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0322BOX). Resolved proteins were then transferred onto a Nitrocellulose membrane (Product # IB23001) by iBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with the primary antibody (1:500 dilution) and detected by chemiluminescence with Goat anti-Mouse IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP (Product # A28177, 1:4000 dilution) using the iBright FL 1000 (Product # A32752). Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit (Product # WP20005).



NOTCH1 Antibody (14-5785-81)
Antibody specificity was demonstrated by detection of differential basal expression of the target across cell lines tested owing to their inherent genetic constitution. Relative expressio of NOTCH1 was observed in in MCF 10A and MOLT-4 in comparison to MDAM-MB-231, MCF-7 and Jurkat using Anti-NOTCH1 Monoclonal Antibody (mN1A), eBioscience™ (Product # 14-5785-81) in Western Blot. {RE}

View more figures on thermofisher.cn

10 References

Western Blot (6)

Cell death & disease

Genetic alterations of Keap1 confers chemotherapeutic resistance through functional activation of Nrf2 and Notch pathway in head and neck squamous cell carcinoma.

"Published figure using NOTCH1 monoclonal antibody (Product # 14-5785-81) in Immunohistochemistry"

Authors: Islam SS,Qassem K,Islam S,Parag RR,Rahman MZ,Farhat WA,Yeger H,Aboussekhra A,Karakas B,Noman ASM

Year 2022

Species Human

Investigative ophthalmology & visual science

The c-Myc Oncogene Maintains Corneal Epithelial Architecture at Homeostasis, Modulates p63 Expression, and Enhances Proliferation During Tissue Repair.

"14-5785-81 was used in Western Blot to show that Myc regulates the balance among CE stratification, differentiation, and surface exfoliation and promotes the transition to the hyperproliferative state during wound healing."

Authors: Portal C,Wang Z,Scott DK,Wolosin JM,Iomini C

Year 2022

Species Mouse

Dilution 1:200

View more WB references on thermofisher.cn

Immunohistochemistry (1)

Cell death & disease

Genetic alterations of Keap1 confers chemotherapeutic resistance through functional activation of Nrf2 and Notch pathway in head and neck squamous cell carcinoma.

"Published figure using NOTCH1 monoclonal antibody (Product # 14-5785-81) in Immunohistochemistry"

Authors: Islam SS,Qassem K,Islam S,Parag RR,Rahman MZ,Farhat WA,Yeger H,Aboussekhra A,Karakas B,Noman ASM

Year 2022

Species Human

Flow Cytometry (3)

The Journal of experimental medicine

Therapeutic targeting of NOTCH signaling ameliorates immune-mediated bone marrow failure of aplastic anemia.

"14-5785 was used in Flow cytometry/Cell sorting to identify NOTCH signaling as a primary driver of Th1-mediated pathogenesis in AA and may represent a novel target for therapeutic intervention."

Authors: Roderick JE,Gonzalez-Perez G,Kuksin CA,Dongre A,Roberts ER,Srinivasan J,Andrzejewski C,Fauq AH,Golde TE,Miele L,Minter LM

Year 2013

Species Mouse

View more Flow references on thermofisher.cn

More applications with references on thermofisher.cn